IN THE CLAIMS:

1. (Currently Amended) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

~~forming a first crystalline semiconductor film by~~ heating the first amorphous semiconductor film to form a first crystalline semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film; and

wherein the second amorphous semiconductor film ~~contains~~ comprises nitrogen at a concentration of [[is]] 1×10^{18} atoms/cm^3 or lower, oxygen at a concentration of [[is]] 8×10^{19} atoms/cm^3 or lower, and noble gas at a concentration of [[is]] 1×10^{20} atoms/cm^3 or higher.

2. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

irradiating the first crystalline semiconductor film with a laser beam;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film; and

wherein the amorphous semiconductor film contains nitrogen concentration is 1 x 10^{18} atoms/cm^3 or lower, oxygen concentration is 8 x 10^{19} atoms/cm^3 or lower, and noble gas concentration is 1 x 10^{20} atoms/cm^3 or higher.

3. (Currently Amended) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

~~forming a first crystalline semiconductor film by~~ heating the first amorphous semiconductor film to form a first crystalline semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film; and

wherein the second amorphous semiconductor film ~~contains~~ comprises nitrogen at a concentration of [[is]] 1 x 10^{18} atoms/cm^3 or lower, oxygen at a concentration of [[is]] 8 x 10^{19} atoms/cm^3 or lower, and noble gas at a concentration of [[is]] 1 x 10^{20} atoms/cm^3 or higher.

4. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

moving the metal element into the second amorphous semiconductor film by heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film; and

wherein the second amorphous semiconductor film contains nitrogen concentration is 1×10^{18} atoms/cm^3 or lower, oxygen concentration is 8×10^{19} atoms/cm^3 or lower, and noble gas concentration is 1×10^{20} atoms/cm^3 or higher.

5. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

performing gettering by heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film; and

wherein the amorphous semiconductor film contains nitrogen concentration is 1×10^{18} atoms/cm^3 or lower, oxygen concentration is 8×10^{19} atoms/cm^3 or lower, and noble gas concentration is 1×10^{20} atoms/cm^3 or higher.

6. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

forming a barrier film over the first crystalline semiconductor film;

forming a second amorphous semiconductor film over the barrier film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film and the barrier film, and

wherein the second amorphous semiconductor film contains nitrogen concentration is 1×10^{18} atoms/cm^3 or lower, oxygen concentration is 8×10^{19} atoms/cm^3 or lower, and noble gas concentration is 1×10^{20} atoms/cm^3 or higher.

7. (Original) A method for fabricating a thin film transistor according to Claim 6, wherein the barrier film is an oxide film made by using ozone water or a mixed solution of hydrogen peroxide solution and sulfuric acid, hydrochloric acid or nitric acid.

8. (Original) A method for fabricating a thin film transistor according to claim 1, wherein the second amorphous semiconductor film is formed by sputtering.

9. (Original) A method for fabricating a thin film transistor according to claim 2, wherein the second amorphous semiconductor film is formed by sputtering.

10. (Original) A method for fabricating a thin film transistor according to claim 3, wherein the second amorphous semiconductor film is formed by sputtering.

11. (Original) A method for fabricating a thin film transistor according to claim 4, wherein the second amorphous semiconductor film is formed by sputtering.

12. (Original) A method for fabricating a thin film transistor according to claim 5, wherein the second amorphous semiconductor film is formed by sputtering.

13. (Original) A method for fabricating a thin film transistor according to claim 6, wherein the second amorphous semiconductor film is formed by sputtering.

14. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film;

wherein the second amorphous semiconductor film is formed by sputtering in a state in which a flammable gas and a noble gas are supplied to a film formation chamber, oxygen concentration in the film formation chamber is reduced, and the supply of the flammable gas is stopped; and

wherein the second amorphous semiconductor film contains nitrogen concentration is 1×10^{18} atoms/cm^3 or lower, oxygen concentration is 8×10^{19} atoms/cm^3 or lower, and noble gas concentration is 1×10^{20} atoms/cm^3 or higher.

15. (Original) A method for fabricating a thin film transistor according to Claim 14,

wherein the flammable gas is one element or more elements selected from a group consisting of SiH_4, Si_2H_6, SiH_2CL_2, $SiHC1_3$, $SiC1_4$, GeH_4, PH_3, B_2H_6, AsH_3, and H_2Se.

16. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film;

wherein the second amorphous semiconductor film is formed by sputtering in a state in which a filament including Ti that is disposed in a film formation chamber is heated, oxygen concentration in the film formation chamber is reduced, and the heating of the filament is stopped; and

wherein the second amorphous semiconductor film contains nitrogen concentration is 1×10^{18} atoms/cm^3 or lower, oxygen concentration is 8×10^{19} atoms/cm^3 or lower , and noble gas concentration is 1×10^{20} atoms/cm^3 or higher.

17. (Original) A method for fabricating a thin film transistor, comprising:

forming a first amorphous semiconductor film;

forming a material including a metal element to promote crystallization over the first amorphous semiconductor film;

forming a first crystalline semiconductor film by heating the first amorphous semiconductor film;

forming a second amorphous semiconductor film over the first crystalline semiconductor film;

heating the first crystalline semiconductor film and the second amorphous semiconductor film;

removing the second amorphous semiconductor film;

wherein the second amorphous semiconductor film is formed by sputtering in a state in which a voltage is applied between electrodes including Ti disposed in a film formation chamber to generate a plasma, oxygen concentration in the film formation chamber is reduced, and applying the voltage between the electrodes is stopped; and

wherein the second amorphous semiconductor film contains nitrogen concentration is 1×10^{18} atoms/cm^3 or lower, oxygen concentration is 8×10^{19} atoms/cm^3 or lower, and noble gas concentration is 1×10^{20} atoms/cm^3 or higher.

18. (Original) A method for fabricating a thin film transistor according to claim 1,

wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammomum hydroxide.

19. (Original) A method for fabricating a thin film transistor according to claim 2, wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

20. (Original) A method for fabricating a thin film transistor according to claim 3, wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

21. (Original) A method for fabricating a thin film transistor according to claim 4, wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

22. (Original) A method for fabricating a thin film transistor according to claim 5, wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

23. (Original) A method for fabricating a thin film transistor according to claim 6, wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

24. (Original) A method for fabricating a thin film transistor according to claim 14,

wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

25. (Original) A method for fabricating a thin film transistor according to claim 16,

wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammonium hydroxide.

26. (Original) A method for fabricating a thin film transistor according to claim 17,

wherein the second amorphous semiconductor film is removed by dry etching using hydrazine or tetramethyl ammornum hydroxide.

27. (Original) A method for fabricating a thin film transistor according to claim 1, wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

28. (Original) A method for fabricating a thin film transistor according to claim 2, wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

29. (Original) A method for fabricating a thin film transistor according to claim 3, wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

30. (Original) A method for fabricating a thin film transistor according to claim 4, wherein the noble gas element is one element or more elements selected from a group consisting of: helium (He), neon (Ne), aragon (Ar), krypton (Kr), and xenon (Xe).

31. (Original) A method for fabricating a thin film transistor according to claim 5, wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

32. (Original) A method for fabricating a thin film transistor according to claim 6, wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

33. (Original) A method for fabricating a thin film transistor according to claim 14,

wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

34. (Original) A method for fabricating a thin film transistor according to claim 16,

wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

35. (Original) A method for fabricating a thin film transistor according to claim 17,

wherein the noble gas element is one element or more elements selected from a group consisting of helium (He), neon (Ne), argon (Ar), krypton (Kr), and xenon (Xe).

36. (Original) A method for fabricating a thin film transistor according to claim 1,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au).

37. (Original) A method for fabricating a thin film transistor according to claim 2,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au).

38. (Original) A method for fabricating a thin film transistor according to claim 3,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au).

39. (Original) A method for fabricating a thin film transistor according to claim 4,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ti), platinum (Pt), copper (Cu), and gold (Au).

40. (Original) A method for fabricating a thin film transistor according to claim 5,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au).

41. (Original) A method for fabricating a thin film transistor according to claim 6,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au).

42. (Original) A method for fabricating a thin film transistor according to claim 14,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au)

43. (Original) A method for fabricating a thin film transistor according to claim 16,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ti), platinum (Pt), copper (Cu), and gold (Au)

44. (Original) A method for fabricating a thin film transistor according to claim 17,

wherein the metal element is one element or more elements selected from a group consisting of iron (Fe), nickel (Ni), cobalt (Co), ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt), copper (Cu), and gold (Au).